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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/582,303	06/22/2000	PETER REGINALD CLARKE	508-032.12	3626

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WARE FRESSOLA VAN DER SLUYS &
ADOLPHSON, LLP
BRADFORD GREEN BUILDING 5
755 MAIN STREET, P O BOX 224
MONROE, CT 06468

EXAMINER

DAVIS, ROBERT B

ART UNIT	PAPER NUMBER
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1722

DATE MAILED: 08/18/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/582,303

Applicant(s)

CLARKE, PETER REGINALD

Examiner

Robert B. Davis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/30/03.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25, 27 and 30-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 23-25 and 30-36 is/are rejected.
- 7) ☒ Claim(s) 8-22 and 27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Response to Amendment

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claims 30-36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 30 is indefinite because it is dependent upon canceled claim 29. The scope of the claim cannot be determined. For the purpose of examination claim 30 is being considered dependent upon claim 27.

Claim 31 is indefinite because it is dependent upon canceled claim 29. The scope of the claim cannot be determined. For the purpose of examination claim 31 is being considered dependent upon claim 27.

Claim 33 is indefinite because it is dependent upon canceled claim 29. The scope of the claim cannot be determined. For the purpose of examination claim 33 is being considered dependent upon claim 27.

Claim Suggestions

3. Line 7 of claim 23, "the first mould part" should be "the substitutable mould part". For the purpose of examination, "the first mould part" is being interpreted as the substitutable mould part that is removed from the base mould part for the purpose of allowing the replacement mould part to be placed over the base mould part and the preform.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Farkas (3,881,855: figures 5-7 and 11; column 4, line 50 to column 6, line 59) or Knowles (2,913,762: figures 1-3 and column 2, line 9 to column 3, line 71).

Farkas discloses a method of injection blow molding comprising: forming a parison (135) between a stationary base mold part (46, 160) having a core (84) thereon and a movable substitutable mold part (98, 100, 112), moving the substitutable mold part away from the parison (135) which remains on the core (84) and the stationary base mold part (46, 160), positioning over the parison (preform) in place of the substitutable mold part a replacement mold part (78, 78) having a larger cavity for forming a blow molded article (see figure 7), stretching the parison away from the core by the injection of air, and removing the replacement mold part from the finish formed article to release the molded article from the core and the stationary mold part.

Knowles discloses a method of injection blow molding comprising: forming a parison (2) between a stationary base mold part (10, 54) and a movable substitutable mold part (6A, 6B) see figure 2, moving the substitutable mold part away from the parison (2) which remains on the core (10), positioning over the parison (preform) in place of the substitutable mold part a replacement mold part (22A, 22B) having a larger

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cavity for forming a blow molded article (see figure 5), stretching the parison away from the core by the injection of air, and removing the replacement mold part from the finish formed article to release the molded article from the core and the stationary mold part.

Claim Rejections - 35 USC § 103

6. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farkas (3,881,855: figures 5-7 and 11; column 4, line 50 to column 6, line 59) or Knowles (2,913,762: figures 1-3 and column 2, line 9 to column 3, line 71) taken together with Roy (4,615,667: figures 15-18A; column 2, lines 10-16, 34-45; column 4, lines 22-30; column 9, line 42 to column 10, line 20; column 12, lines 35-39; and column 15, line 47 to column 16, line 68).

Each of Farkas and Knowles discloses a method of injection blow molding as previously discussed. Neither reference discloses the step of removing the substitutable mold after the parison has skinned, but before full cooling of the parison.

Roy discloses a method of injection stretch blow molding comprising: forming an injection molded preform (102) between an initial mold cavity comprising a core (101), a neck forming portion (103), and a preform cavity mold (52), the parison along with the core (101) and neck forming portion (103) are separated from the preform cavity mold (52), the preform along with the core and neck forming portion are then translated to a blow mold (117), a stretch rod (108) located inside the core is displaced to stretch the preform across the cavity until the preform touches the bottom portion of the blow molding cavity as shown in figure 18, the stretched preform is then blown into a blow molded article and then removed from the mold. Figure 16A illustrates the use of air to

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help separate the preform from the surface of the core. The preform is removed from the injection molding cavity after the preform has skinned against it, but before complete cooling of the preform. The preform is cooled only for a matter of seconds in the injection mold (52) as the outside surface of the preform shrinks away from the internal surface of the mold (column 9, lines 53-57). It is clear to one of ordinary skill in the art that cooling to the point of skinning is accomplished as such is required to maintain the shape of the preform upon removal from the mold.

It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the process of either Farkas or Knowles by cooling the parison only until the point of skinning as disclosed by Roy for the purpose of decreasing cycle time by using the heat of injection instead of cooling the parison completely and then reheating.

7. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Farkas or Knowles and Roy as applied to claims 2-4 above, and further in view of Spurr (4,233,021: figures 20 and 21, and column 1, lines 25-35).

The combination of either Farkas or Knowles and Roy disclose all claimed steps. Roy clearly teaches stretching of the parison with a stretch rod.

Spurr is being used as a teaching reference which discloses that the stretching of a parison with a stretch rod allows for pinning of the bottom of the parison against the bottom of the blow mold to provide a high degree of biaxial orientation as well as good sidewall and thickness control.

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In regards to claim 5, it would have been further obvious to modify the process of either Farkas or Knowles by stretching the parison away from the base mold by a stretch rod to pin the bottom of the parison against the bottom of the blow mold as disclosed by Roy for the purpose of providing a high degree of biaxial orientation as well as good sidewall and thickness control as taught by Spurr.

8. Claims 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farkas taken together with Roy and Spurr.

Farkas discloses an injection blow molding assembly comprising: a stationary mold base mold part (46, 160, 84), a substitutable mold part (98, 100, 112) for defining with the stationary mold part an injection mold for forming a parison (135), an injection gate (94) formed on the substitutable mold part, at least one replacement mold part (78, 78) having a cavity of greater volume to form a blow molded article from the injection molded parison, and a gas connection (124) internally of the base mold part for enabling gas under pressure to be blown into the parison to expand the molded article in the blow mold under pressure. The reference discloses neck molds (160) attached to the base mold which slide apart to allow release of the blow molded article as shown in figure 11. Farkas does not disclose a movable piece in the base mold portion for lifting a portion of the preform from the base mold part.

Roy discloses a stretch injection blow molding apparatus comprising: a core (101) and neck ring mold (103) which move with an injection molded preform from the injection mold to the blow mold, an injection molding cavity (52) which is removable from the preform after a few seconds of cooling in the injection mold, a replacement or

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blow mold (117) is mated with the core (101) and neck ring (103) as shown in figure 18. The core (101) has a passageway for the introduction of air as shown in figure 16A to move the preform away from the core and a stretch rod (108) to stretch the preform in the blow molding cavity.

Spurr teaches a stretch rod that pins a portion of a parison against a portion of the blow mold allows for providing a high degree of biaxial orientation as well as good sidewall and thickness control.

It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the apparatus of Farkas by having a stretch pin to lift the parison away from the base mold as disclosed by Roy for the purpose of pinning the parison against the bottom of the blow mold for the purpose of providing a high degree of biaxial orientation as well as good sidewall and thickness control as taught by Spurr.

Allowable Subject Matter

9. Claims 30-36 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
10. Claims 8-22 and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
11. Claims 8 and 27 are allowable for the reasons of record in paper number 5.

Response to Arguments

12. Applicant's arguments with respect to claims 1-7 and 23-25 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

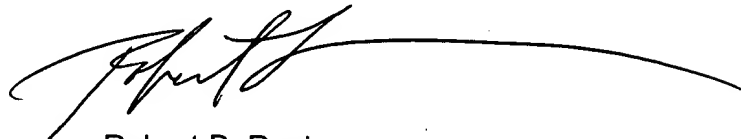
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert B. Davis whose telephone number is 703-308-2625. The examiner can normally be reached on Monday-Friday 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L. Walker can be reached on 703-308-0457. The fax phone numbers for the organization where this application or proceeding is assigned are 703-

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872-9306 for regular communications and 703-872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Robert B. Davis
Primary Examiner
Art Unit 1722

8/9/03

August 9, 2003